

any accident, thanks to antiseptic precautions; 5 induced labours and 3 craniotomies and cephalotripsies were performed without any consequent complication. Aron goes so far as to assert that involution is more perfect and puerperal fever less to be feared after instrumental and artificial than after spontaneous delivery. Charpentier strongly combated this theory and insisted that the application of the forceps only an hour and a-half after complete dilatation and turning, commenced when the cervix is still retracted, are hasty, meddlesome proceedings.

(358) Excretion of Earthy Salts in Mollities.

NEUMANN (*Archiv f. Gynäk.*, vol. xlvii, Part II, 1894) examined the urine and faeces of a woman, aged 37, who was attacked with mollities ossium, which as usual made progress during pregnancy, though the child was delivered without instruments. After labour the patient was well fed and well housed; for two weeks she was kept on a milk diet in order to allow of a free supply of calcium and phosphoric acid. The bone disease, it appears, was in consequence arrested, the bones of the extremities becoming firm again. Neumann discovered that the excretion of calcium by the kidneys in the progressive stage of mollities was much the same as in health. During the second stage, that of osseous regeneration and recovery, less calcium escaped through the kidneys, but rather more in the faeces. A slight relative loss of magnesium occurred during the progressive stage; on the other hand, that salt was eliminated in less than the normal amount during the second stage. The normal relation of calcium to magnesium in the excreta (1 to 3) was altered, the latter earth diminishing in amount. The loss of phosphoric acid during the progressive stage was found to be marked and continuous, and that compound was as evidently retained during recovery.

(359) Bacteriological Examination during Abdominal Section.

C. B. PENROSE (*International Med. Mag.*, August, 1894) has adopted this practice with success. Cover-glass examinations of the suspected material are made, and are fixed in the flame of a spirit lamp, and then stained with carbolfuchsin. The microscopic examination is made with a Leitz $\frac{1}{2}$ oil immersion lens. Penrose neither irrigates nor uses the drainage tube, unless the microscope shows these contents to be septic. The presence of gonococci in small numbers does not necessitate drainage. Penrose recently operated in two cases of tubo-ovarian abscess, caused by sepsis at labour. In each case the abscess was ruptured during removal, and the pelvis filled with pus. In the first the pus was found to be sterile, and the abdomen was closed without irrigation or drainage. In the second the pus contained streptococcus, staphylococcus, and bacillus coli communis. The pelvis, in consequence, was well washed out and drained. Both patients recovered

without peritonitis or sepsis, though the convalescence of the first was very much easier than that of the second.

(360) Torsion of Pedicle in Chronic Disease of Uterine Appendages.

HARTMANN AND REYMOND (*Annales de Gynec. et d'Obstet.*, September, 1894) add a case of this kind to the two recorded by Bland Sutton and Delbet. In the cases already published, however, the tube alone was twisted; in Hartmann and Reymond's the ovary was involved. The patient was a multipara, subject to pelvic pains for six months, with dysuria and painful defaecation. A tumour was detected rising above the pubes. The authors diagnosed double salpingitis, and, a few weeks later, the pains suddenly increased in intensity and the swelling in size. Abdominal section was performed. A big red tumour was exposed, adherent to omentum and to small intestine and to the sigmoid flexure. The pedicle was twisted three times, according to the drawing in the paper. It sprang from the left side of the uterus; that organ was itself rotated half a turn. The opposite, or right appendages, were cystic, and Hartmann removed them. The left appendages consisted of a tubo-ovarian cyst full of blood. The patient made a good recovery.

(361) Disadvantage of Ovariectomy in Childbed.

GRASSOW (*Centralbl. f. Gynäk.*, No. 43, 1894) recently exhibited at a German medical society a parovarian cyst which had contained 25 pints of fluid. The patient had gone to the end of her eleventh pregnancy. The tumour caused a marked distortion of the child's skull. Fourteen days after delivery ovariectomy was performed. The bulky uterus, in imperfect involution, gave great trouble to the operator. The base of the cyst, being sessile, was with difficulty detached; the pedicle required very careful ligature, or rather suture. Grassow concludes that, whatever may be said for ovariectomy during pregnancy, it is not right, save when urgent symptoms appear, to perform that operation after delivery till involution is complete.

THERAPEUTICS.

(362) The Antitoxin Treatment of Diphtheria.

SCHIPPERS (*Weekblad van het Nederlandsch Tydschrift voor Geneeskunde*, October 27th) records a case of acute diphtheria cured by a single injection of Behring's serum No. II. The patient was a boy, aged 5 years, and the symptoms were very severe. The tonsils, the uvula, and the entire surface of the posterior wall of the pharynx, were covered with membranes. The voice was entirely lost; stridor was so loud that it could be heard outside the front door. The lungs were unaffected. Temperature 100° F., the pulse full, somewhat accelerated. An operation seemed to be the last resource, but, as the author a few

days before had obtained from Berlin a single dose of serum, the injection was decided upon, although the case seemed hopeless for the experiment. The serum was injected in the right hypochondrium. The treatment which was being pursued before the injection (quinine and sesquichloride of iron, the application of ice, and inhalation of steam) was continued. The following morning a decided improvement was observable. The false membranes had nearly entirely disappeared. The voice was still hoarse, but the stridor was greatly diminished. By the third day after the injection the alarming symptoms had entirely subsided, the temperature was normal, and the appetite had returned. In the case of another child of the same family, for whom no serum was available at the date of report, the membranes were extending with alarming rapidity over all the organs of respiration.

(363) Local Treatment of Faucial Diphtheria.

LOEFFLER (*Deut. med. Woch.*, October 18th, 1894) emphasises the importance of local treatment based on a bacteriological study such as he has followed out in a large number of cases. Many antiseptic solutions kill diphtheria bacilli in a few seconds. Equal parts of turpentine and alcohol were found much more efficient when carbolic acid (2 per cent.) was added to them. Ferric perchloride kills the diphtheria bacillus very rapidly. The author uses the following application: Alcohol (60), toluol (36), and liq. ferri perchlor. (4). Fully developed diphtheria cultures were killed in five seconds. If a dose of virulent diphtheria bacilli was introduced beneath the skin of a guinea-pig, and followed by $\frac{1}{10}$ c.cm. of the above mixture, the animal did not become ill, and even after an interval of one to four hours it was saved. This remedy was used in an epidemic of diphtheria. Among 71 patients treated out of hospital, not 1 died. Of 30 hospital patients, 5 died; in 4 of these the disease had already extended into the larynx and nose, and the fifth died of gangrenous pneumonia. The general condition of the patients soon improved. Complications were rare. As long as any membrane remains a further application is made. The remedy should be vigorously used at least every four hours. When decomposition processes are present in the throat the chloride is converted into sulphate, and is inefficient. Menthol was found a useful addition (10 g. to 100 g. of the remedy). Creolin (2 to 3 per cent.) and cresol were found useful substitutes for the iron, but they are inferior in bactericidal properties. The author has also tried the addition of pyoktanin with good effect. In all cases of genuine diphtheria the iron mixture should be used, but where decomposition processes are going on the other solution, specially that containing cresol, should be tried.—Goldschmidt (*Rev. de Méd.*, October, 1894) speaks very highly of the internal use of the perchloride of iron in small and frequent

doses. He has used this method of treatment for thirteen years, and has never lost a case where the larynx was intact.

(364) "Fat-Milk" Infants' Food.

GÄRTNER recommends (*Allg. Wien. med. Zeit.*, October 13th, 1894) freshly "separated" diluted cow's cream as an infant's food. Good cow's milk is treated with an equal quantity of water, and placed in a centrifugal "separator." The fluid which runs from the "cream tap" contains all the cream of the original milk except about 0.1 or 0.2 per cent., half the proteids, and half the milk sugar. This gives a very close imitation of human milk, with the exception that the milk sugar is much too low. Escherich gives (*ibid.*) the following comparative table of analyses:

	Casein.	Fat.	Sugar.
Gärtner's "fat milk" ...	1.76	3.0	2.4
Human milk ...	1.82	3.94	6.23
Diluted cow's milk ...	1.76	1.81	2.4

Gärtner urges that the "fat-milk" has the further advantage that the process of centrifugalising removes the grosser impurities, hair, etc.

(365) Lysidin.

GRAWITZ, of Gerhardt's Clinic (*Deut. med. Woch.*, October 1st, 1894), has used this remedy in gout. It has a much more powerful solvent action on uric acid than piperazin. He records two cases of characteristic gout in which lysidin gave the best results. The drug was given in doses varying from 1 g. to 5 g. in the day, with occasional intermissions. An elaborate investigation was made at the same time into the metabolism in these cases, the intake and the output being carefully estimated. It was found that there was no increase in the excretion of uric acid. In the first case the drug was omitted for some days, and the pains returned, but the patient rapidly improved again as soon as the lysidin was resumed. In the second case tophi were seen to disappear under the treatment. In a case of genuine rheumatism the drug was without effect.

(366) Electrical Treatment of Exophthalmic Goitre.

BORDIER (*Archives d'Electricité Médicale*, October, 1894), contributes a paper on the treatment of exophthalmic goitre by the induction coil, and reports two cases much benefited. The applications, by Vigouroux's method were: (1) To the facial nerve (upper branch) and to the orbicularis palpebrarum for half a minute each side; (2) to the neck between the hyoid bone and the anterior border of the sterno-mastoid, the electrode pressed deeply over the carotid artery, duration one and a-half minute on each side; (3) over the thyroid swelling by an electrode of larger surface for five minutes; (4) over the precordium for three minutes. The thyroid muscles were also made to contract a few times during the sitting. Treatment repeated three times a week. Indifferent electrode applied to the nape of the neck throughout. The results were decidedly favourable. The same journal also

contains a paper by Déliage on the use of the continuous current in exophthalmic goitre.

(367) Electricity in Migraine.

LABBÉ (*Arch. d'Electricité Médicale*, October, 1894) reports a successful case. The patient, a cook, aged 45, had severe attacks for eight years, with increasing frequency. For over a year they had been of almost daily occurrence, causing her to abandon her calling. Many drugs had been administered. The menstrual function was regular. Treatment by insulation and the electrostatic brush discharge directed upon the face and head was continued, with occasional interruptions, from August until the following March. Each application lasted ten minutes, and the total number was thirty-eight. From the commencement the attacks were controlled, and the patient still remained quite free from migraine four months after treatment had been discontinued.

PATHOLOGY.

(368) The Spinal Cord in Divers' Palsy.

ONLY two cases of necropsy of the bodies of persons who have died of divers' palsy, or caisson disease, are recorded. Sharples has examined one case in which the spinal cord was studied microscopically (*Journ. of Nerv. and Mental Dis.*, October, 1894). The case is that of a man who had been a diver in deep water. For two weeks he had been diving to the depth of 210 feet, protected by the ordinary diving suit and helmet, and often remaining under water for thirty minutes. The last time he reappeared he complained of sharp pain in the arms and legs and became almost unconscious. On recovering consciousness (two hours after) he complained of neuralgic and shooting pains down his arms to his fingers, much increased on movement. The arms and legs became paralysed; so were the bladder and rectum; and there was complete anaesthesia from the neck downwards. In a fortnight he developed a bronchitis; incontinence of urine persisted, with cystitis; bedsores began to form about the sacrum, trochanters, and elbows. Shortly before death he became febrile, with delirium (probably septic, and secondary to the bedsores), dying with a temperature of 104°. The cord was seen to be normal externally, but on slicing it (previous to placing in Müller's fluid) spots of extreme creamy softness were noted within it. Microscopic examination showed tract lesions, which were practically limited to the cervical and upper dorsal cord. These consisted of softening and degeneration in the columns of Burdach of both sides, and less markedly in the columns of Goll. These were most obvious in the cervical region, but yet less in the dorsal portion of the cord. A few diffuse spots of softening were found also in the lateral columns (not restricted to any one definite tract), and one series of softened spots in "the right anterior

cornu of the cord," which is constant through the length of the cord, varying in size at different levels." Some of the blood vessels were excessively dilated, and a few showed slight (incipient) hæmorrhages. The writer thinks that the considerable pressure and changes of pressure (atmospheric) to which divers are subject in some way bring about hæmorrhages into the spinal cord, as a result of which inflammatory and secondary softening occur. This accounts for the scattered nature of the foci of disease, but why the cervical and upper dorsal cord suffer most has yet to be explained. The first rise of temperature marks the onset of a more severe spinal lesion (myelitis) than before, and the bladder and trophic troubles are the natural outcome of the spinal mischief.

(369) Basedow's Disease and the Thyroid Gland.

EULENBURG (*Deut. med. Woch.*, October 4th, 1894) first refers to the disturbed functions caused by the absence of the thyroid gland. The objections to the thyroid theory of Basedow's disease are that (1) enlargement of the thyroid may be absent; (2) the palpitation or exophthalmos may be present long before the goitre; and (3) large goitres may exist without symptoms of Basedow's disease. On the other hand, a slight enlargement can escape notice, or the enlargement may take place into the deeper tissues, and changes may thus exist in the gland without being appreciated. The objections concern the mechanical rather than the chemico-toxic theory of the part played by the thyroid gland. Moebius drew attention to the contrast between the symptoms of Basedow's disease and myxœdema, and the latter has been known to follow on the former. The chemical theory of the normal functions of the thyroid supposes the destruction of some baneful substances in the blood by the healthy gland, or more probably the production of a substance by the gland very important or absolutely necessary to life. Since the thyroid cannot be stimulated to secretion through its nerves (as shown by Hürthle), it would appear that the state of the blood must supply the necessary stimulus. Basedow's disease may be due to a progressive increase in the thyroid secretion. The quantitative changes in the blood in this disease are seen in the greatly increased vascularity of the thyroid gland, whereas qualitative changes, also influencing secretion, are illustrated by the disease occurring in chloro-anæmia, after acute infective diseases, etc. Ligation of the bile ducts has been shown to lead to an increase in the thyroid secretion. Toxic products are found in the blood in Basedow's disease. The secretion of the thyroid may also be more rapidly absorbed. The therapeutic test of the thyroid origin of this disease, whether by the improvement in the quality of the blood or by the lessening of the secreting surface of the gland by extirpation, must not be over-estimated.